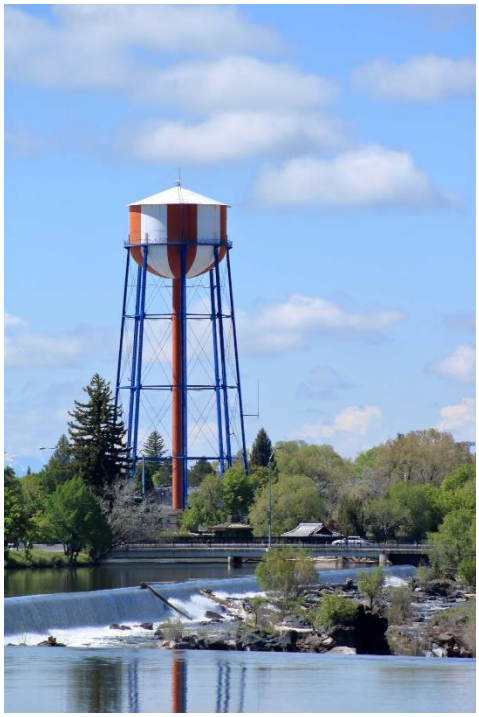
Idaho Falls Water Tower

Frequently Asked Questions

Thank you for reviewing the facts and being part of the process!



Most would agree that landmarks such as our Idaho Falls River Walk, welcome signs, historic buildings, water tower and other iconic structures make Idaho Falls feel like home. Unfortunately, there comes a time when a decision has to be made about whether or not to repair or replace aging structures. Over the past few years, city officials have been evaluating the condition of the city's elevated water tower. Much discussion, research and careful consideration has gone into the decision to replace the deteriorating water tower. The tower has been significant part of the Idaho Falls skyline for more than 80 years, and city officials want community members to be informed and have an opportunity to offer input on how that new skyline will look for the future. Below are some answers to frequently asked questions about the tower.

Q: How old is the water tower?

A: The tower was completed in 1937 by the Chicago Bridge & Iron Company, making it 82 years old. The style is called a Horton Tank, named after the company's founder.

Q: How big is the water tower?

A: The bowl of the tower is 51 feet in diameter and holds 500,000 gallons of water. The max height of the tower is 185 feet at the peak of the roof.

Q: How did the water tower get its unique color scheme?

Originally, the color of the tower was silver. After a public competition, it was repainted its current red, white and blue scheme in 1974, in advance of the nation's 1976 bicentennial.

Q: What purpose(s) does the water tower serve?

A: The tower is essential to the operation of the city's potable water system. All pumps within the water system are designed to match the pressure provided by the elevated tower which is located near the geographical center of the city. The water tower also provides a reliable source of stored, pressurized water for many critical purposes such as:

- Continuity of service during a power outage
- Water system pressure stabilization
- Emergency storage for fire fighting
- Mitigation of high water use within the system peak
- Prevention from contamination due to backflow events.

Q: Why does the water tower need to be replaced?

A: Due to its age, there are several structural issues with the current tower, including:

- Non-compliance with current seismic requirements and building standards
- Base paint coats losing adhesion and peeling
- High lead content in base coat paint
- Aging concrete pier foundations supporting the tower's legs, last replaced in 1969
- Surface cracking of exposed concrete pier foundations
- Significant corrosion in the vault below the tower
- Corrosion and deterioration of cast iron inlet and outlet piping
- Location safety: The current tower is between Idaho Falls Power's (IFP) administration building and the central power plant, limiting IFP's ability to expand operations. In the winter, icicles form on the tower and fall over the employee walking path and employee parking lot.
- Non-compliant roof hatch
- Deteriorated and cracking welds
- Insufficient safety ladder and walk path railing

Q: What maintenance has already been done on the tower and what evaluations have been done?

A: In 1997, a paint coat analysis was conducted on the tower as it was beginning to show signs of wear. At that time, only the roof and eaves were painted white at a cost of approximately $24,000. In 2008, another evaluation was completed and it was recommended that, due to adhesion failure of base coats of lead-based paint, the city consider sandblasting the tower to bare steel and re-coating the entire tower. At the same time, the Water Division consulted a structural engineering company to review the structural integrity of the tower. That company recommended that the city not perform a full structural analysis, but rather generate plans for its eventual replacement or demolition. These results are still valid today. The reality is that, even if the city were to invest the estimated $2.3 million to restore the existing tower, it would still not meet current building standards and seismic zone requirements, nor would it provide sufficient water storage to meet the expanding needs of a growing city.

Q: Why can't we just restore the existing tower like we have restored some of the historic buildings downtown?

A: In a broader context, city officials are very proud of the significant progress that has been made downtown as a result of a very cooperative partnership between the City of Idaho Falls, Idaho Falls Downtown Development Corporation, Idaho Falls Redevelopment Agency and private investors. Restoring old buildings and structures has always been considered a priority, providing that buildings can support their intended purpose. Historic preservation benefits both the historic and economic value of our downtown. Fortunately, we have been able to restore many buildings in our quest to preserve the historic nature of our downtown. However, there are circumstances when safety, structural deficiencies and the need to accommodate future city growth outweigh the option of restoration. The tower is simply too deficient to restore to its intended purpose, and needs to be replaced with a tower that is built to today's standards that is sized to serve the growing needs of the city now and into the future.

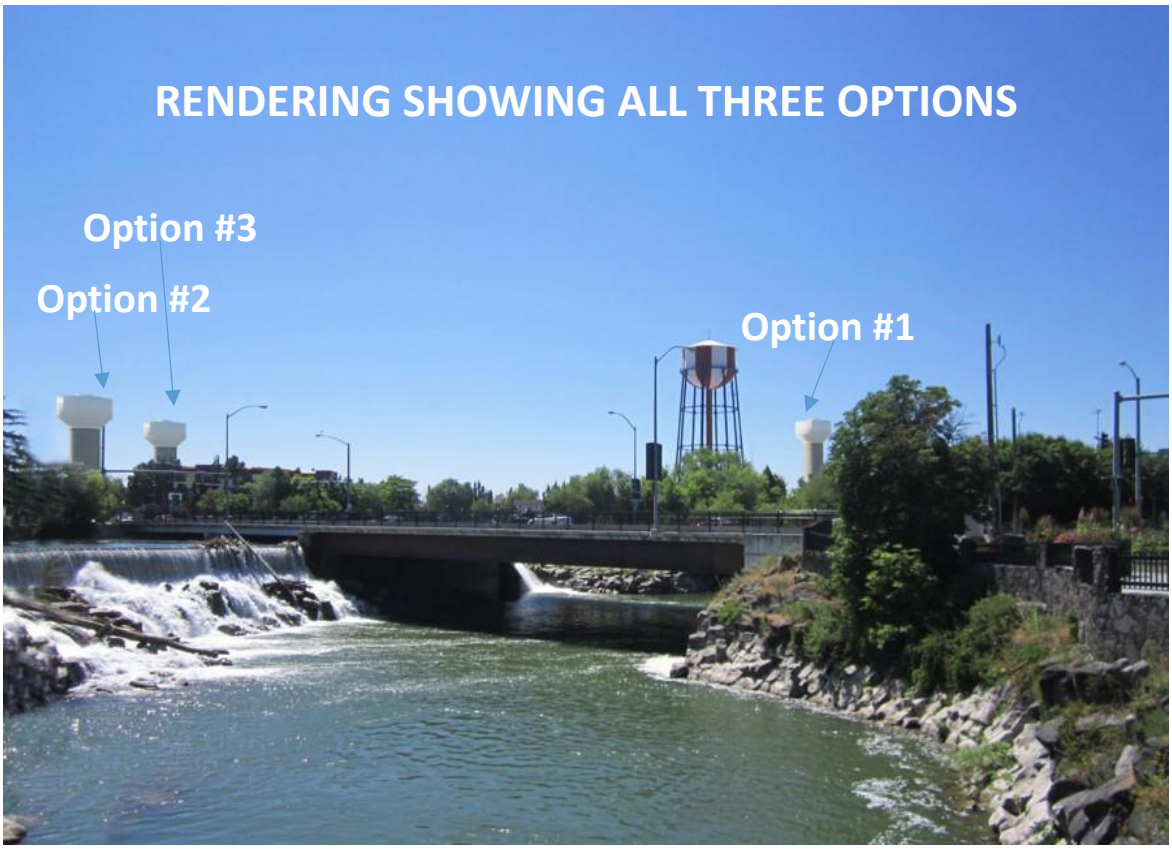
Q: Why is the new tower going to be in a new location?

A: The new tower must be in a location that is in close proximity to the old one where the well that supplies it with water is located while remaining near the geographic center of the city. The current tower must remain in use to maintain a pressurized system for the city during the construction of the new, 1,000,000-gallon capacity tower. Once the new tower is built and operational, the city can transition the water system to the new tower and begin looking at removing the current structure. City officials are currently evaluating three (3) city-owned sites identified as viable options for the location of the new water tower, and encourage the public to be involved in providing input on the best location.

Q: Where are the three viable city properties that have been identified as possible locations for the new tower?

A: The three (3) viable options for the new tower include:

1) Option 1: South Capital Park, south of the Art Museum on Capital Avenue.
2) Option 2: Parking lot between the Idaho Falls Library and the State of Idaho office building.
3) Option 3: Parking lot between State of Idaho Building and the Willow Tree Gallery.



The photo above is a rendering showing the skyline of all three options together. The photo was taken from the west side of the river, north of the Broadway Bridge near the Visitors' Center/Chamber of Commerce. The height of the new tower will be similar to the height of the current tower. The variations in tower heights seen in this rendering are due to perspective and distance rather than altitude or the height of the new tower.

Option 1 Rendering: South Capital Park


Option 2 Rendering: Parking lot between Idaho Falls Library & State Office Building


Option 3 Rendering: Parking lot between State Office Building & Willow Tree Gallery

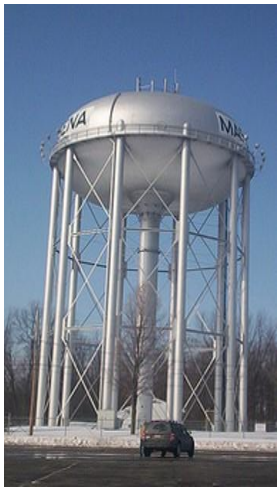

Q: What would the new tower look like?

A: Four (4) water tower types meet the requirements for Idaho Falls' seismic zone, including:

- Type 1: Composite tower – steel bowl with concrete pedestal (preferred)
- Type 2: Multi-column tower – all steel construction
- Type 3: Fluted column tower – all steel construction
- Type 4: Multi-leg tower – all steel construction (similar to current tower)

A composite tower (Type 1) is the preferred style due to a reduction in maintenance expenses over the life expectancy of the new water tower.

Type 1



Type 2

Type 3

Type 4

Q: Will the new tower have the same footprint as the old tower?

A: The footprint of the new tower is dependent upon the style. The footprint is larger than the existing tower for both the multi-column and the multi-leg towers. However, the footprint is smaller for the composite and fluted column styles. The bowl at the top of the new tower will hold 1,000,000 gallons of water compared to the current 500,000-gallon capacity.

Q: What is the project timeline?

A: The project to replace the water tower will take place in phases over the next several years. Currently, officials are evaluating the three (3) sites that were identified for the location of the new water tower. City officials are encouraging the public be involved in providing input on the best location.

Timeline:

- Fall/Winter 2019: Site location public input period

- Spring 2020: Decision on site location
- April 2020 through January 2022: Engineering/Coating design of new tower
- Spring 2022 through Fall 2023: Construction of new tower
- Spring 2024: Removal of old tower

Q: How much would it cost to just repair the existing tower?

A: As of the fall of 2019, the cost to repair the current tower is estimated at $2.3 million which would include paint removal, mitigation, recoating, replacement of eight (8) pier foundations, tower upgrades, and other project related cost contingencies. Even if the city invested in repairing the current tower, it would still not meet current building standards and seismic requirements or provide additional storage for future city growth.

Q: What is the estimated cost for constructing a new tower?

A: As of the fall of 2019, the estimated cost to build a new tower is estimated at $6.4 million which includes all project-related costs.

Q: How will the new tower be paid for?

A: Replacement of the tower was a recommended project in the 2015 Water Facility Plan. The plan was then reviewed and approved by City Council. In anticipation of the need for replacement, the city began adjusting water rates in 2015, which were then placed in the water fund to pay for a new water tower without the need for other funding mechanisms.

Q: How can I get involved in the process?

A: There will be two phases of public input: 1) Site Selection; 2) New Tower Coating Design. (Refer to the timeline above.) Each of these two (2) phases will include public meetings and public outreach including: local media (print/TV/radio/web), social media (City Facebook & Twitter) and City website. Additional interactive outreach opportunities will be announced as we get closer to each phase.

Q: Where can I go for additional information?

A: Official information sources include:

1. City website. Click HERE for additional information and photos of the water tower.
2. A link to water tower information is also on the homepage of the city's website at www.idahofallsidaho.gov (bulleted list on right-hand side of the homepage).
3. Subscribe to receive email public involvement notifications directly from the City:
    a. Go to www.idahofallsidaho.gov.
    b. Click on the blue Notify Me button in the center of the homepage.
    c. Enter your email address.
    d. Click the envelope next to each notice you would like to receive. (Press releases regarding the water tower will be emailed from the City of Idaho Falls News category under News Flash.)

4. Follow the City of Idaho Falls on Facebook and Twitter.
5. Stay tuned to local media outlets (print/TV/radio/web).

Public Works Department, Public Information Officer, Updated November 7, 2019